

Abstract of the Disclosure

This invention describes the roll bonding of Al and Ni-bearing Cu alloys to suitable substrates to produce self-brazing materials for the elevated temperature, aggressive environment application. The Al and Ni-bearing Cu alloy for the self-brazing layers can be obtained by cladding layers of elemental Ni and Al to Cu. The Al content in the self-brazing layers can be varied from 2 to 100%. The Ni content in the self-brazing Cu alloy can be varied from 10 to 100%. Additional alloying elements in the commercial Cu alloys such as Fe, Cr, Si, Mn, Sn and Zn are unavoidable. Trace elements in the commercial alloys such as Pb, Ag and As will also affect the brazing and shall be reduced.